REMARKS/ARGUMENTS

Claims 1-58 are pending. Claims 1-28 and 43-55 have been withdrawn from consideration without prejudice. Claims 29, 31, 33, 35, 56 and 58 have been amended in this response. No new matter is believed to be added. In addition, unless a passage of a claim is specifically discussed below in connection with one or more cited references, Applicant respectfully submits that the amendments to the claims should be constructed as being submitted merely to clarify the invention rather than as a limitation submitted to overcome a cited reference.

Amendments to the Specification

The specification has been amended to note the patented status of the parent case. As amended, the paragraph on page 1, lines 3-9 reads as follows:

> This application claims priority to and the benefit of U.S. Provisional Application No. 60/420,256, entitled "A Hammermill," filed on October 22, 2002, and is a continuation-in-part of United States Patent No. 6,926,215, entitled "A Hammermill," issued August 9, 2005, which claims priority to the U.S. Provisional Application No. 60/292,213, entitled "Hammermill," filed May 17, 2001, all of which are incorporated in their entirety in this document by reference.

As currently amended in this response, pending independent Claims 29 and 56 read as follows:

> 29. A hammermill comprising:
>
> a housing having an inlet end, a discharge end, a sidewall extending between the inlet end and the discharge end, and a longitudinal axis, the sidewall of the housing defining an enclosed work space, an inlet opening being defined in the sidewall of the housing proximate the inlet end of the housing, a discharge opening being defined in the sidewall of the housing proximate the discharge end of the housing, the inlet opening being disposed above the longitudinal axis of the housing and the discharge opening being disposed below the longitudinal axis of the housing;

a rotor assembly disposed within the housing for rotation about the longitudinal axis of the housing;

a plurality of opposing pairs of disks mounted to and circumscribing the rotor assembly, each pair of disks being spaced apart a predetermined distance;

a first plurality of hammers coupled to the rotor assembly and disposed in the enclosed work space, wherein at least one hammer of the first plurality of hammers is positioned between respective pairs of disks;

a second plurality of hammers coupled to the rotor assembly, the second plurality of hammers disposed proximate the inlet end of the housing and adjacent to and upstream of the first plurality of hammers, wherein at least one hammer of the second plurality of hammers is positioned between respective pairs of disks; and

at least one annular ring having an peripheral ring edge, wherein each annular ring is connected to the rotor assembly between a portion of at least one hammer of the respective first and second plurality of hammers and at least one disk of the respective pair of disks, wherein the longitudinal widths of the annular ring and the hammer substantially equal the predetermined distance between the pair of disks;

wherein each hammer of the first and second plurality of hammers has an outer tip which defines a hammer rotation radius about the longitudinal axis of the housing, wherein the peripheral ring edge of the annular ring extends outwardly from the rotor assembly toward the sidewall of the housing, wherein the peripheral ring edge defines a maximum radius of curvature about the longitudinal axis of the housing that is about or less than the hammer rotation radius, and wherein the diameter of each disk is less than the diameter of the annular ring.

56. A hammermill comprising:

a housing having an inlet end, a discharge end, a sidewall extending between the inlet end and the discharge end, a longitudinal axis, a primary reduction chamber and an adjoining secondary reduction chamber, the sidewall proximate the inlet end of the housing defining an inlet opening, wherein, in the secondary reduction chamber, the sidewall of the housing defining an enclosed work space, and wherein, in the primary reduction chamber, the sidewall and the inlet opening define a partially enclosed work space;

a rotor assembly disposed within the housing for rotation about the longitudinal axis of the housing;

a plurality of opposing pairs of disks mounted to and circumscribing the rotor assembly, each pair of disks being spaced apart a predetermined distance;

a plurality of hammers coupled to the rotor assembly and disposed in both the primary and secondary reduction chambers, respectively, wherein each hammer of the plurality of hammers has an outer tip which defines a hammer rotation radius about the longitudinal axis of the housing, each hammer being positioned therebetween a respective pair of the plurality of opposing pairs of disks, wherein each hammer of the plurality of hammers is selected from a group consisting of fixed hammers, swing hammers, or a combination thereof; and

an attrition plate assembly secured to the sidewall within the primary and secondary reduction chambers, respectively, the attrition plate assembly arranged such that the hammers are spaced from and overlie a portion of the attrition plate assembly;

at least one annular ring having an peripheral ring edge, wherein one annular ring of the at least one annular ring is connected to the rotor assembly between a portion of at least one hammer of the plurality of hammers and a disk of a pair of opposing disks such that the peripheral ring edge of the annular ring extends outwardly from the rotor assembly toward the sidewall of the housing, and wherein the peripheral ring edge defines a maximum radius of curvature about the longitudinal axis of the housing that is about or less than the hammer rotation radius.

Claim Rejections under 35 U.S.C. § 102 cited in the Office Action

The Examiner has rejected pending Claims 29, 30, 32-34, 36-39, 56 and 57 as being anticipated by United States Patent No. 5,947,396 to Pierce. Referring to the Pierce disclosure, and as noted by the Examiner, Pierce '396 shows a horizontal hammermill having an upper inlet, a lower outlet, a rotor assembly having a plurality of hammers, disks 66 and wear plates 58. However, the Pierce disclosure does not teach a hammermill as currently claimed, rather, in one aspect, the disks 66 of the design of the Pierce collider are connected to a rotor and are fixedly connected to one or more thrust guides 70. There is no disclosure or teaching in the Pierce disclosure of an "annular ring" that is mountable therebetween a thrust guide and one disk 66 of a respective pair of disks 64 to control the flow of material therethrough the housing of the Pierce apparatus.

Thus, the Pierce disclosure fails to anticipate independent Claims 29 and 56 as previously presented, because differences exist between the claimed invention and the respective disclosure. The Federal Circuit has held that "[a] claim is anticipated only if each and every element *as set forth in the claim* is found, either expressly or inherently described, in a single prior art reference." *Constant v Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988) (quoting *Kalman v Kimberly Clark Corp.*, 713 F.2d 760, 771, 218 U.S.P.Q. 781, 789 (Fed. Cir. 1983)) (emphasis in original). *See Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)("The identical invention must be shown in as complete detail as contained in the . . . claims."). Therefore, Applicant respectfully requests that the Examiner withdraw the Section 102 rejection of pending independent Claims 29 and 56 and those claims that depend therefrom.

In addition to the cited reference not anticipating independent claims 29 and 56, the Pierce reference fails to render Claims 29 and 56 obvious under 35 U.S.C. § 103. One skilled in the art would not have been motivated to modify the cited references to arrive at the claimed invention comprising a plurality of hammers mounted to respective pairs of disks and at least one annular ring that is disposed between at least one hammer and a disk of a respective pair of disks. The annular ring extends beyond the peripheral edge of its adjoining disk and acts to impede and/or regulate passage of material therethrough the hammermill. In contrast, the design of the Pierce apparatus is characterized by overlapping efforts to assist in obtaining maximum circulation and colliding action within the enclosure. Examples of these efforts include the use of a spiral pattern along the length of the rotor, in which the thrust guides 70 in each successive disk set 64 are offset by a preselected angle, or the arrangement of the disk sets 64 in an overlapping and alternating pattern as shown in Fig. 1. Thus, a modification of the cited references to include the elements of the present invention that act to retard passage of material therethrough the hammermill would prevent the Pierce apparatus from being used as designed, which undermines an obviousness rejection. *See In re Fritch*, 972 F.2d 1260, 1265 n.12, 23 U.S.P.Q.2d 1780, 1783 n.12 (Fed. Cir. 1992) ("This court has previously found a proposed modification inappropriate for an obviousness inquiry when the modification rendered the prior art reference inoperable for its intended purpose.") (citing *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984)); *Schneider (Europe) A G v Scimed Life Sys.*,

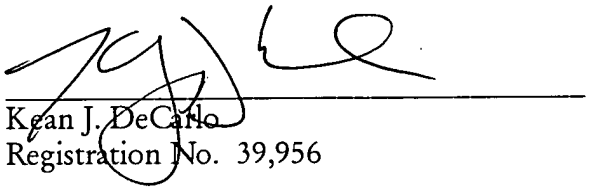
Inc., 852 F. Supp. 813 (D. Minn. 1994) ("Where obviousness is based upon a modification of a reference that destroys the intended purpose or function disclosed in a reference, there is no motivation for engaging in the modification.") (citing *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984)).

Further, the construction of the cited references in this manner requires hindsight reasoning, which the Federal Circuit has explicitly rejected. *See In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992) ("Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious."). Therefore, in addition to not being anticipated by Pierce, independent Claims 29 and 56, as previously presented, likewise would not be rendered obvious by the disclosure and teaching of Pierce. Likewise, the claims that depend therefrom independent Claims 29 and 56 would not be rendered obvious. *See In re Fine*, 5 U.S.P.Q.2d 1569, 1600 (Fed. Cir. 1988) ("Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.").

Therefore, Applicant respectively requests allowance of all the outstanding claims. The Examiner is invited and encouraged to contact directly the undersigned if such contact may enhance the efficient prosecution of this application to issue.

A Credit Card Payment Form PTO-2038 authorizing payment in the amount of $225.00 for a two-month extension of time for a small entity is enclosed. This amount is believed to be correct; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,



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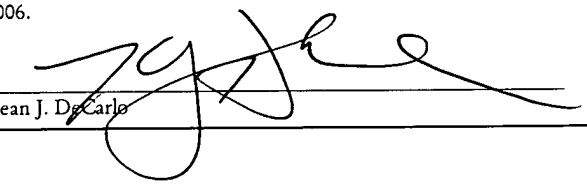
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on February 17, 2006.



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